

OPEN MEETING AGENDA ITEM



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**BEFORE THE ARIZONA CORPORATION COMMISSION  
COMMISSIONERS**

**RECEIVED**

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AZ CORP COMMISSION  
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Arizona Corporation Commission

**DOCKETED**

NOV 19 2010

DOCKETED BY

IN THE MATTER OF THE APPLICATION  
OF ARIZONA PUBLIC SERVICE  
COMPANY FOR APPROVAL OF PLANS  
RELATED TO RENEWABLE  
TRANSMISSION PROJECTS

DOCKET NO. E-01345A-10-0033

**COMMENTS TO STAFF'S  
PROPOSED ORDER**

In compliance with Decision No. 70635 (December 11, 2008), which resulted from the Arizona Corporation Commission's ("Commission") Fifth Biennial Transmission Assessment ("BTA") process, Arizona Public Service ("APS" or "Company") made a filing on October 30, 2009, in which the Company identified its "top three" potential renewable transmission projects in APS's service territory that would support the growth of renewable resources in Arizona. On January 29, 2010, APS filed an Application for Approval of Plans Related to Renewable Transmission Projects ("Application") for Commission approval. On November 9, 2010, the Utilities Division Staff ("Staff") of the Commission submitted a Proposed Order on the Company's Application ("Proposed Order").

APS is in agreement with many of the conclusions reached in the Proposed Order. Specifically, APS agrees with Staff that: (1) the Renewable Transmission Action Plan ("RTAP") process is appropriate and consistent with Commission decisions; (2) that the timing of the RTAP filings should be in parallel with the BTA process; and (3) there should be maximum flexibility related to the timing and duration of the Certificate of Environmental Compatibility ("CEC") for Renewable Transmission Projects ("RTPs"). However, APS and Staff have offered different approaches regarding the process by which the Commission should review and approve APS's identified RTPs. APS urges the Commission to approve

1 the Company's approach to the RTAP Process set forth in Exhibit A attached hereto. Exhibit  
2 B is an amendment to the Proposed Order consistent with the Company's position on this  
3 issue.

#### 4 **Timing Mismatch**

5 There is an inherent "chicken-and-egg" timing mismatch when it comes to RTPs that  
6 Staff's proposed four-step RTP Approval Process does not recognize. The timing mismatch  
7 exists between the time needed to construct renewable generation resources and the time  
8 needed to construct transmission: transmission lines take significantly longer to develop than  
9 renewable generation. Staff's four-step RTP Approval Process does nothing to solve the  
10 chicken-and-egg issue because it is predicated on the existence of power purchase agreements  
11 (the "eggs" in the chicken-and-egg analogy) that would have to be negotiated as much as  
12 seven years prior to the development of RTPs (the "chickens").

13 In Decision No. 70635, the Commission acknowledged the "chicken-and-egg"  
14 dilemma as follows: "renewable developers may not put forth projects unless transmission is  
15 available and utilities may be reluctant to build transmission without commitments from  
16 renewable resource developers to build generation facilities. We need a process to solve this  
17 dilemma."<sup>1</sup> In that same Commission decision, the Commission suggested possible  
18 approaches<sup>2</sup> to address the timing issue. APS spent the better part of last year exploring and  
19 vetting the possible approaches and considering various options with stakeholders.<sup>3</sup> The  
20 RTAP Approval Process that APS submitted in its Application represents the agreed-upon  
21 approach by APS and stakeholders.

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22  
23 <sup>1</sup> See Decision No. 70635, p. 7, Docket No. E-00000D-07-0376.

24 <sup>2</sup> "Possible approaches to be considered could include a multi-phase approach that starts with an 'open season'  
25 solicitation of confidential letters of intent to bid on renewable Requests for Proposals. These letters would  
26 identify the exact location of the proposed project, the technology proposed and the project output. Then,  
based on the results of the 'open season,' the utility or multiple utilities would identify sub-regions or areas  
where a critical mass of proposed projects is likely to be built. Based on this information, a utility or utilities  
could commence a formal [RFP] for a specific sub-region and select one or more renewable projects needing  
transmission in that sub-region." *Id.* at 21-28.

27 <sup>3</sup> Docket No. E-00000D-07-0376, 2008 Biennial Transmission Assessment 4/20/2009 and 6/5/2009 Joint  
28 Workshops; Docket No. E-00000A-09-0066, Generic - BTA Information Gathering 11/23/2009, Special Open  
Meeting; SWAT RTTF ARTIS and SWAT RTTF Finance subcommittee meetings.

Staff's proposal would require APS to follow a four-step process in which APS would demonstrate the need for each individual RTP, essentially attempting to create a one-size fits all review and approval process. The Commission cannot make a determination by formula because a formulaic approach does not address the aforementioned chicken-and-egg issue. APS's RTP development plans advance the development of the RTPs prior to when they would normally be identified as being needed, with the intent of supporting the growth of renewable energy in Arizona. If APS were to wait until it had a contract before beginning permitting of the RTP, then APS would still have the entire process of the permitting, the development, and the construction of the RTP. Although Staff's desire may be to identify and use definitive criteria for designating a line as a RTP, the criteria may not be applicable to each individual RTP equally. There are many criteria that are important to determining whether a line should be approved as a RTP, including, but not limited to, economics and cost, interconnection queue robustness, and ability to provide multiple benefits to customers.<sup>4</sup> However, since each RTP is unique, each potential RTP must be reviewed on a case-by-case basis<sup>5</sup> and approved on its own merits.

#### **APS' Proposed "Top Three" Potential RTPs**

It is important to note that APS predicated its general RTAP approach on working within the bounds of the existing transmission approval process. The transmission approval process includes looking for other parties interested in similar transmission, submitting an application to the Commission and the Arizona Power Plant and Line Siting Committee for a CEC, building the RTP, filing for approval with the Federal Energy Regulatory Commission ("FERC") and, ultimately, rate recovery via the Company's FERC tariff in combination with the retail Transmission Cost Adjustor.

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<sup>4</sup> See Application, Exhibit A, pp. 10-15, discussing the criteria and important factors.

<sup>5</sup> *Id.* at p. 15. In fact, the Renewable Transmission Task Force's Finance Committee reached consensus that "this determination cannot be made by the Commission by formula or fiat."

1 Each RTP has unique characteristics and requires unique development plans as  
2 illustrated in APS's RTAP<sup>6</sup> (relevant excerpt attached hereto as Exhibit A) when discussing  
3 its "top three" potential RTPs. The development plans range from performing further study,  
4 looking for interested parties, and applying for a CEC (as is the case for APS's RTP 3A –  
5 Palo Verde to Liberty area, and RTP 3B – Gila Bend to Liberty area) to advancing the in-  
6 service date of a project with a CEC already in-hand (as is the case for APS RTP 1 – Palo  
7 Verde to Delany, and APS RTP 2 – Palo Verde to North Gila #2). In all cases, the  
8 development plans identified in APS's Application are over and above the basic needs for  
9 APS based on conventional and renewable resource acquisition per APS's resource plan and  
10 other customer needs.

11 The transmission projects identified in APS's Application are multi-dimensional and  
12 have several benefits to APS customers that ensure the RTPs will provide benefits to them in  
13 a variety of situations. APS seeks Commission approval of the development plans in APS's  
14 Application, because these RTPs (and their associated timing) are over and above current  
15 customer needs and represent the Commission's policy decision to advance renewable energy  
16 development further in Arizona.

### 17 Conclusion

18 In summary:

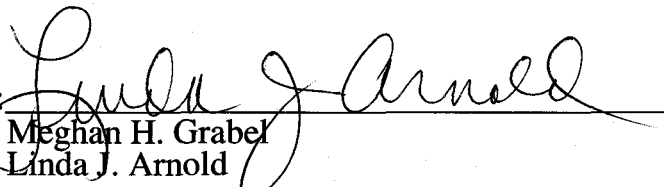
- 19 1. The RTAP process is appropriate and consistent with Commission decisions;
- 20 2. The timing of the RTAP filings should be in parallel with the BTA process; and
- 21 3. There should be maximum flexibility related to the timing and duration of the CEC  
22 for RTPs.

23 APS and Staff have offered different processes regarding Commission review and approval of  
24 APS's identified RTPs. APS urges the Commission to approve the Company's approach to  
25 the RTAP Process, as set forth in Exhibit A, and to adopt APS's Proposed Amendment  
26 attached as Exhibit B.

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27  
28 <sup>6</sup> *Id.* at pp. 16-32.

1 RESPECTFULLY SUBMITTED this 19th day of November, 2010.

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3  
4 By:   
5 Meghan H. Grabel  
Linda J. Arnold  
6 Attorneys for Arizona Public Service Company

7 ORIGINAL and thirteen (13) copies  
8 of the foregoing filed this 19th day of  
November, 2010, with:

9 Docket Control  
10 ARIZONA CORPORATION COMMISSION  
11 1200 West Washington Street  
Phoenix, Arizona 85007

12 COPY of the foregoing mailed/delivered this  
13 19th day of November, 2010 to:

14 Janice Alward  
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# EXHIBIT A

#### **4. Recommended Projects**

Based on APS's overall analysis, described in Section 3 of this Report, the following is a description of the conclusions reached in response to Decision No. 70635. It identifies APS's "top three" potential RTPs, along with plans and proposed funding mechanisms to develop the projects. APS believes that these RTPs, along with the proposed development approach, will support the growth of renewable energy resources in Arizona.

##### **1. Delaney to Palo Verde 500-kV**

###### **Project Description:**

This transmission project is a 500-kV transmission line from the Palo Verde hub to a new switchyard that has not yet been constructed ("Delaney"), approximately 18 miles west of the Palo Verde hub. The Delaney switchyard will be a station along a 500-kV "loop" that will eventually run from Palo Verde around the west and the north side of the Phoenix Metropolitan Valley to the Pinnacle Peak substation (See Map in Attachment G). This project is also an important component to the potential future Devers II transmission project since the project creates the Delaney switchyard. The Delaney switchyard has been identified as the starting point for the Devers II transmission project, which is a connection to the Southern California markets and has the potential to enable additional renewable energy to be exported from Arizona to California.

###### **Summary of Development Approach and Rationale:**

APS will pursue the land/ROW acquisition, engineering, and construction necessary to enable the capability of meeting a December 2012 in-service date. Outside participation of

20% is anticipated to support this project; however, APS will proceed independently with development if necessary. Project development activities will be advanced to provide for an in-service date as early as December 2012. Close coordination with resource developers is necessary to ensure the project development corresponds to the development schedule of resources in the Delaney area. The actual in-service date of this project will be aligned with the first definitive use of the line. This first use of the RTP could come in the form of an APS PPA with a developer at Delaney or a committed TSA with a developer selling to another utility. Absent an earlier need, the construction schedule would be synchronized with the Delaney to Sun Valley 500kV transmission project – currently scheduled to be in-service in 2014.

#### Development Steps

- Acquire CEC – *This step is already completed.*<sup>27</sup>
- File CEC compliance stating intent to utilize Delaney to Palo Verde portion of the CEC.
- Finalize participant agreements for project.
- Acquire ROW
- Engineering Design
- Construction-ready and capable to meet an in-service date of December 2012 contingent on a need – an APS PPA or a TSA – otherwise in-service to be synchronized with the Delaney to Sun Valley transmission project.

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<sup>27</sup> ACC Decision No. 68063 (August 17, 2005).



Cost Recovery:

- Cost recovery through annual formula rate filing at FERC.
- The Transmission Cost Adjustor ("TCA") provides for cost recovery from retail customers upon ACC approval.<sup>28</sup>
- Special cost recovery requests:
  - No special treatment is anticipated at this time.

Description of why this RTP is expected to advance renewable resource deployment within the State of Arizona:

- Project provides opportunity for comparably low-cost renewable resources for APS customers.
- At the time of this analysis, there were 3,300MW+ interconnection requests to Delaney, which indicates a robust market interest in this renewable resource area.
- Project provides access to PV hub for delivery to Arizona loads or for export to California markets via existing transmission lines from the PV hub to California, which aids developers in market assessment of projects in the Delaney area.
- Area contains excellent solar output, which leads to comparably good pricing of solar resources.
- SRP and Central Arizona Project ("CAP") are currently participants (for 20% of line).

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<sup>28</sup> FERC approves cost-recovery, and the rates are passed on to retail customers through a TCA mechanism.

- There is BLM land in the area of Delaney that could potentially be used for solar development.
- Project could potentially support up to 1,500MW of solar development.
- Project is relatively low cost in relation to its benefits.
- Project fits in the long-term APS and regional transmission plans.

Expected Cost and Potential Rate Impacts of Project:

- Estimated APS cost of project is \$55M.<sup>29</sup>
- Potential approximate rate increase impact to customers: 0.36%

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<sup>29</sup> This is the estimated project cost for APS's 80% share of the project and is based on current estimated costs.

**2. Palo Verde to North Gila 500-kV #2**

**Project Description:**

This transmission project is a 500-kV transmission line from the Palo Verde hub to the North Gila substation outside of Yuma. It is approximately a 114 mile line and would parallel an existing, jointly-owned 500-kV transmission line from the Palo Verde hub area to the North Gila substation (See Map in Attachment G). This project is a participant transmission project with the current participation being:

APS - 40%,

SRP- 20%,

Imperial Irrigation District ("IID") - 20%, and

Wellton Mohawk Irrigation and Drainage District ("WMIDD") - 20%.

Additionally, APS has proposed this project to the WAPA for potential funding under the provisions of the ARRA.

**Summary of Development Approach and Rationale:**

APS will, given the current level of participation by others, continue to work toward an in-service date of 2014 for this project. APS originally initiated the development of this line to increase the load serving capability for, and to deliver resources to, the Yuma load center. Based on current Yuma load forecasts, the timing for the APS need for a portion of this line is closer to the 2017 timeframe or beyond. APS would not pursue this project if there was not participant involvement due to the large investment, relative to the size of the Yuma load. This project is not needed to meet APS's renewable energy requirements in the 2014 timeframe because APS can access

high quality renewable resources in the Palo Verde hub, Delaney, and Gila Bend areas, as well as the potential to access some renewable resources on the existing Palo Verde to North Gila line. Due to the large amount of capital needed for this project, it is important to recognize the need for multiple participants, especially because no single participant has a compelling reason to build the line independently. For these reasons, APS is working to maintain the participant involvement, as well as seeking WAPA involvement for a share of the project. Although this project may be very beneficial from an export standpoint, close coordination with California will be necessary to ensure the transmission "west of the river" will be adequate to support this "east of the river" upgrade.

#### Development Steps

- Acquire CEC – *This step is already completed.*<sup>30</sup>
- Develop participant agreements (in process).
- Acquire land/ROW (on timeline to support current in-service date and subject to second bullet).
- Engineering design (on timeline to support current in-service date and subject to second bullet).
- Construction for in-service date of 2014 (subject to completion of work described above).

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<sup>30</sup> ACC Decision No. 70127 (January 23, 2008).

Cost Recovery:

- Cost recovery through annual formula rate filing at FERC.
- The TCA provides for cost recovery from retail customers upon ACC approval.
- Special cost recovery requests:
  - Will file with FERC early to request special treatment, including:
    - Construction Work In Progress.
    - Recovery of costs already incurred if it becomes prudent to abandon project at any point during the development process (due to participant uncertainty).

Description of why this RTP is expected to advance renewable resource deployment within the State of Arizona:

- Project provides opportunity for comparably low-cost renewable resources for APS customers.
- There are 2,000 MW+ interconnection requests to the area adjacent to this line, which indicates a robust market interest in this RTP.
- APS customers have an additional use for this line beyond renewable resources. This line will enhance the reliability of the Yuma load pocket, increase the load serving capability in Yuma, and provide additional resource flexibility to serve the both the Valley and the Yuma load pocket.
- Project provides access to both PV hub and North Gila for project delivery to Arizona loads or for export to California markets.

- Having both Palo Verde and North Gila delivery would enable additional flexibility for renewable projects desiring to export to California markets.
- Area contains excellent solar output, which leads to comparably good pricing of solar resources.
- SRP, IID, and WMIDD are current participants (for 60% of line).
- Additionally, WAPA has expressed an interest in participation as part of the potential government funding of WAPA transmission expansions for renewable energy. WAPA is currently in the process of evaluating this project for potential participation.
- There is BLM land in the area adjacent to this line, which could potentially be used for solar development.
- Project could potentially support up to 1,500 MW of solar development.
- At APS's current participation level, project has a reasonable cost in relation to its benefits.
- Project fits in the greater APS and regional transmission plans.
- Potential transmission wheeling on the line could lower exposure to increased APS customer costs further. However, wheeling revenue may be limited on the new line due to the existence of an existing line and the dependence on additional transmission development within California to allow for the full export benefits of this line.
- This line could also enable APS to bring additional geothermal resources to APS customers from the Imperial Valley in California.

**Expected Cost and Potential Rate Impacts of Project:**

- Expected APS cost of project is \$97M.
- Potential approximate rate increase impact to customers: 0.63%

**3a. Palo Verde to Liberty**

**Project Description:**

This transmission project is a conceptual 500-kV transmission line from the Palo Verde hub to a new substation near the existing Liberty substation located in the west Valley (See Map in Attachment G). The specific details of the project are not yet known since transmission planning study work will have to be conducted to identify the optimum project.

**Summary of Development Approach and Rationale:**

APS, in conjunction with the overall regional planning process, will conduct studies to identify the best alternative to enable additional resources in the Palo Verde area to be delivered to the Valley load pocket. The studies will also consider, concurrent with the evaluation of the Gila Bend to Liberty project, the enabling of the resources in the Gila Bend area to reach the Valley load pocket. Once a definitive project has been identified, APS will conduct an open season for participation. Once the open season is complete, APS will prepare and file for a CEC. The in-service date of the project may not be known when the CEC application is filed; this highlights the need for flexibility in the line siting process to help resolve the "chicken-and-egg" problem, which is the greater period of time required to develop and construct transmission lines as compared to renewable resource facilities. APS will proceed with engineering design and ROW acquisition as and when needed to support a to-be-determined in-service date. This development plan, along with support from other projects, can help resolve the "chicken-and-egg" problem as it relates to



acquiring additional resources from the Palo Verde hub, the Hyder area, and/or the Harquahala Valley.

Development Steps

- Perform technical studies to determine the optimal electrical connection and best project approach.
- Conduct open season.
- Prepare CEC application and file application for CEC approval.
- Acquire land/ROW (proceed once needed based on in-service date).
- Engineering design (proceed once needed based on in-service date).
- Construct line – Proceed once a need exists – either a load serving need, PPA, or a TSA.

Cost Recovery:

- Cost recovery through annual formula rate filing at FERC.
- The TCA provides for cost recovery from retail customers upon ACC approval.
- Special cost recovery requests:
  - APS does not anticipate requesting special cost recovery treatment at this time although this may be re-evaluated at a later stage of project development.

**Description of why this RTP is expected to advance renewable resource deployment within the State of Arizona:**

- Project provides opportunity for comparably low-cost renewable resources for APS customers.
- There are extensive interconnection requests at the Palo Verde hub and additional locations to the west of Palo Verde, indicating an eventual need for this type of project to allow access to the Valley load center.
- APS has additional potential uses for this line that make it robust for APS customers:
  - Provides increased load serving capability;
  - Provides increased import capability; and
  - Provides access to existing gas resources.
- Adding additional PV-east capacity allows others to utilize transmission to export power.
- Area contains excellent solar output, which leads to comparably good pricing of solar resources.
- Potential for other participants in this line.
- Project could potentially support up to 1,500 MW of solar development.

**Expected Cost and Potential Rate Impacts of Project:**

- Expected cost of project is unknown at this time due to the early development of the project.

- Potential range of rate impacts to customers is unknown at this time due to the uncertainty of the future project cost.

**3b. Gila Bend to Liberty**

**Project Description:**

This transmission project is a conceptual 500-kV transmission line from the Gila Bend/Gila River area to a new substation near the existing Liberty substation located in the west valley (See Map in Attachment G). The specific details of the project are not yet known since transmission planning study work will have to be conducted to identify the optimum project.

**Summary of Development Approach and Rationale:**

APS, in conjunction with the overall regional planning process, will conduct studies in order to identify the best alternative to enable additional resources in the Gila Bend/Gila River area to be delivered to the Valley load pocket. The studies will also consider, concurrent with the evaluation of the Palo Verde to Liberty project, the enabling of the resources in the Palo Verde area to reach the Valley load pocket. Once a definitive project has been identified, APS will conduct an open season for participation. Once the open season is complete, APS will prepare and file for a CEC. The in-service date of the project may not be known when the CEC application is filed; this highlights the need for flexibility in the line siting process to help resolve the "chicken-and-egg" problem, which is the greater period of time required to develop and construct transmission lines as compared to renewable resource facilities. APS will proceed with engineering design and ROW acquisition as and when needed to support a to-be-determined in-service date. This development plan,

along with support from other projects, can help resolve the “chicken-and-egg” problem as it relates to acquiring additional resources from the Gila Bend area.

**Development Steps**

- Perform technical studies to determine the optimal electrical connection and best project approach.
- Conduct open season.
- Prepare CEC application and file application for CEC approval.
- Acquire land/ROW (proceed once needed based on in-service date).
- Engineering design (proceed once needed based on in-service date).
- Construct line – Proceed once a need exists – either a load serving need/PPA or a TSA.

**Cost Recovery:**

- Cost recovery through annual formula rate filing at FERC.
- The TCA provides for cost recovery from retail customers upon ACC approval.
- Special cost recovery requests:
  - APS does not anticipate requesting special cost recovery treatment at this time although this may be re-evaluated at a later stage of project development.

Description of why this RTP is expected to advance renewable resource deployment within the State of Arizona:

- Project provides opportunity for comparably low-cost renewable resources for APS customers.
- There are almost 1,200 MW of interconnection requests to the area in and around Gila Bend, which indicates a robust market in this renewable resource area.
- APS has an additional potential uses for this line that make it robust for the APS customers:
  - Provides increased load serving capability;
  - Provides increased import capability; and
  - Provides access to existing gas resources.
- Provides opportunity for future expansion of transmission system by completing a transmission loop. This would be done by using the Palo Verde North Gila II line (from the Palo Verde hub to the Hyder area) and then connecting the Gila Bend/Gila River to Valley project with an additional future segment from Gila Bend to Hyder (shown as segment 54 in Attachment C). This would provide future additional renewable transmission capability and flexibility.
- Provides additional opportunity for export of power.
  - Wheeling from Gila Bend to Jojoba to Palo Verde would allow export sales to the California market.

- Area contains excellent solar output, which leads to comparably good pricing of solar resources – as demonstrated by the Solana Concentrated Solar Plant PPA.
- Potential for other participants in this line.
- Project could potentially support up to 1,500 MW of solar development.

Expected Cost and Potential Rate Impacts of Project:

- Expected cost of project is unknown at this time due to the early development of the project.
- Potential likely range of rate impacts to customers is unknown at this time due to the uncertainty of the future project cost.

# EXHIBIT B



**Arizona Public Service Company  
Proposed Amendment #1  
In the Matter of Arizona Public Service Company for Approval of Plans Related to  
Renewable Transmission Projects  
Docket No. E-01345A-10-0033**

Page 7, Line 27:       After "Projects," INSERT "and"

Page 8, Lines 1  
- through 2:       DELETE "and" through "Staff"

Page 8, Lines 13  
- through 22:       DELETE paragraphs, REPLACE WITH the following:

"IT IS FURTHER ORDERED that APS's RTP development plan for the proposed Delany to Palo Verde 500 kV project is in the public interest and is therefore approved.

IT IS FURTHER ORDERED that APS's RTP development plan for the proposed Palo Verde to North Gila 500 kV project is in the public interest and is therefore approved.

IT IS FURTHER ORDERED that APS's RTP development plans for the proposed Palo Verde to Liberty and Gila Bend to Liberty projects are in the public interest and are therefore approved."

MAKE ALL CONFORMING CHANGES